exhibition preview

Striking Iron

The Art of African Blacksmiths

Allen F. Roberts and Marla C. Berns

"STRIKING IRON: THE ART OF AFRICAN BLACKSMITHS"
LEAD CURATOR TOM JOYCE
WITH CO-CURATORS ALLEN F. ROBERTS, WILLIAM J. DEWEY, HENRY J. DREWAL, AND MARLA C. BERNS

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Life has an edge, sometimes keen, sometimes blunt. Enter iron—digging, cutting, shining, or rusting, but always transforming circumstances. Iron is "born" when smelting releases it from rock. How did sub-Saharan Africans affect these complex processes, sculpt natural-draft furnaces by hand, and create malleable iron to change the world? How did smelters and smiths know which ore to select, which wood to cut for charcoal, and how to position logs within the furnace to stoke fires of the astounding heat required to smelt iron? Who knew what to do, how to hammer, when to quench, and what to reheat? What arcane sciences were mastered, what dramas performed? Why this shape for a tool, weapon, or emblem of status and not that, and how was perfection realized and recognized? How did ironworking legitimize and empower leadership and rule, and vice versa, however ambiguous such roles most surely are? As a Yorùbá *oríkì* praise of Ògún has it, the god of iron may "wear a red cap," reflecting the glow of a blacksmith's forge and the transformative implements there created, but please Ògún, "let me not see the red of your eye!"[1]

"Striking Iron: The Art of African Blacksmiths," organized by the Fowler Museum at UCLA, will examine how the smith's craft extends from the production of the most basic of domestic tools to the creation of a corpus of inventive, diverse, and technically sophisticated vehicles of social and spiritual power. The project draws on decades of research by its curatorial team, led by artist Tom Joyce, a MacArthur Fellow originally trained as a blacksmith, who lends his technical expertise and nearly three decades of substantive research and study of African ironwork to this project. Working closely with him is a team of co-curators: Allen F. Roberts, UCLA Professor of World Arts and Cultures/Dance; William J. Dewey, Associate Professor of African Art History at Pennsylvania State University; Henry J. Drewal, Evjue-Bascom Professor of Art History and Afro-American Studies at the University of Wisconsin-Madison; and Marla C. Berns, Shirley and Ralph Shapiro Director at the Fowler Museum. In addition, a team of seven international scholars has served as project consultants and content specialists: Rowland Abíódún, Shadreck Chirikure, Candice Goucher, Manuel Jordán, Colleen Kriger, Scott MacEachern, and Patrick McNaughton. Each team member—including additional authors contributing to the book-length publication accompanying the exhibition—brings focused knowledge of a distinctive perspective on African ironworking.

The traveling exhibition will present over 225 diverse artworks from across the African continent, concentrating on the region south of the Sahara and covering a time period spanning early archaeological evidence of ironworking to the present day. The works selected date mostly from the early nineteenth to the late twentieth century, with many documented in the field and others coming from American and European public and private collections, including early European colonial collections.

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1 Africa is front and center in this image of Earth taken by a NASA camera on the Deep Space Climate Observatory (DSCOVR) satellite. The image, taken July 6, 2015, from a vantage point one million miles from Earth, was one of the first taken by NASA's Earth Polychromatic Imaging Camera (EPIC).
Photo: courtesy NASA

2 Artist unknown (Ekonda peoples, Democratic Republic of the Congo [DRC])
Ritual staff, ca. 1930
Iron, wood; H: 70 cm
Collection of Joel and Zachary Cooner
Photo: J. Cooner

MILLENNIA OF "STRIKING IRON"

Across the African continent and as seen via satellite imagery, most unforested lands appear a deep red-orange from prevalent iron ores (Fig. 1). At least 2,500 years ago, people in several parts of Africa independently discovered that if one heats iron ore to 1200° Celsius, metal will form a "bloom" that blacksmiths can then forge into life-changing tools and weapons. Ever since, iron as a substance of value and agent of change has helped Africans to forage and hunt, till the soil, and assure protection and prosperity. Forged knives, hoes, iron-tipped digging sticks, sickles, machetes, axes, and adzes have long assured clever, efficient, and fulfilling management of household and agricultural chores, while iron arrow points, daggers, swords, spears, scepters, ceremonial axes and adzes, and other blades of an astounding range of designs, sizes, and purposes have promoted kings' ambitions and warriors' fortunes.

To achieve the extreme temperatures necessary to ensure the delivery of high-quality blooms, smelters devised ingenious furnace designs and methods to feed air into their fiery chambers. Sometimes they were fed by natural draft, with earthen furnaces

(clockwise from top left)
3 Artist unknown (Central Pende peoples, DRC)
Adze, early 20th century
Wood, iron, pigment; H: 44 cm
Felix Collection, Brussels
Photo: Dick Beaulieux, 2005, courtesy Felix Collection, Brussels

4 Handle carved by Kwaku Bempah (active early 20th century, Asante peoples, Ghana)
Double clapperless bell (*dawuro, nnawuta*), ca. 1920
Wood, iron; H: 57.5 cm
Fowler Museum at UCLA, X87.1312; Gift of Elizabeth Lloyd Davis
Photo: Don Cole, 2014, © Fowler Museum at UCLA

5 Tomb 7, Kamilamba, DRC. An axe blade and iron pins (circled) that might have adorned the axe's handle.
Photo: Pierre de Maret, 1992, © Pierre de Maret and Royal Museum for Central Africa, Tervuren

constructed to create a chimney effect that channeled a rush of air from bottom to top to intensify interior temperatures. Other delivery systems required bellows fashioned from leather, clay, or wood, designed to preheat air while hand pumping a strong blast into terracotta tubes inserted into the furnace openings to attain high temperatures. Once smelting was complete, the bloom settled to the bottom of the furnace and was removed for further refinement through repeated heating and hammering into bars. Now relatively easy to store and distribute, the bars were of a quality ready to forge: when iron reaches white-hot temperatures, the compressive force of hammer blows enables a skilled practitioner to shape the metal as desired. A state-of-the-art technology still in practice across the continent, the forge itself and the tools and methodology employed by the blacksmith show enormous diversity from region to region.

In response to shifts in local economies during the colonial period, African blacksmiths began incorporating increasingly available salvaged materials into their work through creative recycling. Today, smiths forge work to accommodate new contexts and purposes. The Yorùbá deity of iron, Ògún, for example, has become the patron of automobiles, laptops, and cell phones, ubiquitous in urban southwestern Nigeria. Blacksmiths continue to help people cope with social and political change, serving as technology brokers who transform one thing into another—truck wheels become bells and gongs; automobile leaf springs become axes and machetes; old refrigerators become charcoal stoves and *asen* (iron tomb and shrine sculptures in the Republic of Bénin); and flattened bicycle spokes become "thumb pianos" in western Zambia. Smiths continue to forge objects for ritual activation, spiritual empowerment, and ancestral veneration as well as healing, fertility, prophecy, and protection. As demonstrated in "Striking Iron," cultures always keep pace with new needs and opportunities.

6 Artist unknown (Dogon peoples, Mali)
Standing figure with rings
Iron; H: 25.4 cm
Private collection, Brussels

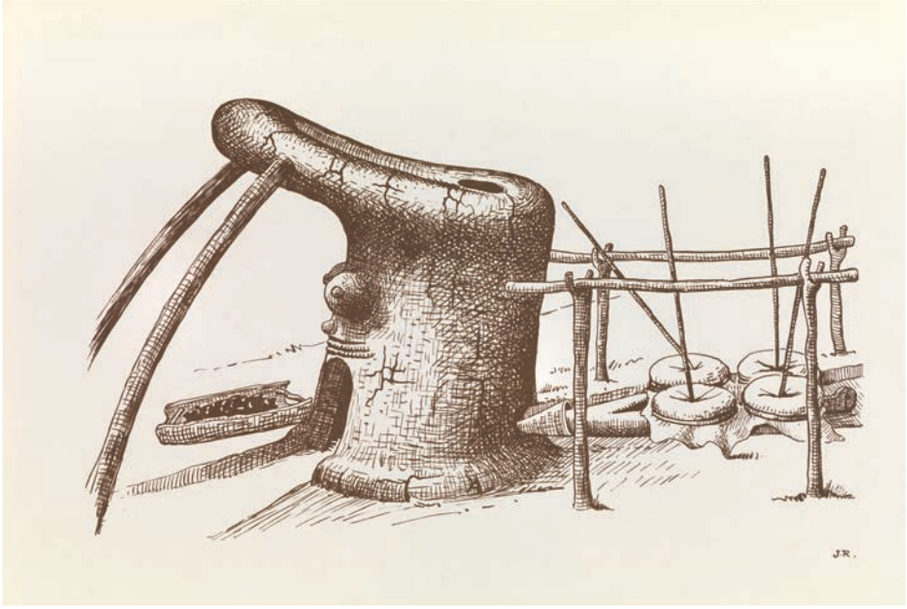
7 Diagram of Chokwe furnace, Kaparandanda, Alto Zambezi, Angola, rendered by José Redinha, 1953.

"STRIKING IRON: THE ART OF AFRICAN BLACKSMITHS"

To tell the visually rich and complex stories of how ironworking has shaped African cultures in practical, intellectual, and aesthetic ways, "Striking Iron" is organized around eight thematic sections, with outstanding works complemented by video footage, soundscapes, historical and ethnographic field photographs, didactic texts, and a customized gallery tour. The exhibition is conceived to offer opportunities for visitors to pause at "Focus" objects, chosen to highlight their artistry or historical importance. "Spotlights" occur within the sections to offer closer looks at particular cultural groups or artistic genres. Artists' perspectives and voices are incorporated, as is that of lead curator Tom Joyce. Presented on monitors throughout the exhibition, Joyce's filmed commentaries help explain the artistic accomplishments and purposes of select Focus objects.

"Striking Iron" begins with an immersive, tunnel-like entryway featuring a multiprojector audiovisual presentation on the walls and ceiling, of a galactic swirl juxtaposed with close-up views of the sparks of a blacksmith's hammer striking red-hot iron, or of the molten iron core of the Earth followed by molten iron flowing from a smelting furnace, set to the sound of heartbeats alternating with the pounding rhythm of a smith's hammer. Visitors are thus introduced to the centrality of iron in the universe, its visible presence on the Earth's crust, its symbiotic relationship with the planet's first life forms, its vitality in the hemoglobin that oxygenates our blood. Such matters are informed by the expertise of publication contributor E.C. Krupp, Director of the Griffith Observatory, Los Angeles.

To complement this multimedia experience, the exhibition's introduction also features five stellar artworks from Africa, each chosen for its virtuosic forging and superb aesthetic strength, and its ability to introduce one or more of the larger installation's key themes. From the outset, "Striking Iron" demonstrates that artistry can be every bit as important to African blacksmiths as practical purpose in the production of things. Among the opening Focus objects, a ritual staff made by Ekonda peoples of the Democratic Republic of the Congo (DRC) has a lavishly forged finial marked by an asymmetrical and highly ornamental shape,



evidencing one smith's excellence (Fig. 2). Kept in the treasury of a lineage leader, a prestige staff such as this one transcended mere technical purposes to proclaim its owner's status and authority. A ceremonial adze from Central Pende peoples of the DRC, another introductory Focus object, has a wooden shaft graced by two delicately sculpted heads; the "tongue" of the upper one is in the form of a beautifully bifurcated iron blade (Fig. 3). Such sophisticated adzes and axes offered a metaphoric link between effective leadership and influential speech. A double clapperless bell from Asante peoples of Ghana, struck during drumming associations of warrior groups, was potentially used to send messages (Fig. 4). Its figurative wooden handle, elaborately carved to proclaim the political and religious status of its owners, was sculpted in the early twentieth century by the renowned—and still remembered—artist Kwaku Bempah. The sounds it makes are not simply music: Their timbre and rhythm offer culturally specific references, meanings, and resonances.

The exhibition proceeds into "Africa's Iron Origins," offering some of the earliest evidence of ironworking in sub-Saharan Africa. Most contemporary scholars agree that Africans began smelting iron from local ores at least 2,500 years ago, but details are debated. A large map identifies significant locations of ironworking sites on the continent, while scientific evidence is presented in photographic documentation of excavations involving in-situ fragments of early iron objects. Emphasis is given to Campo in Cameroon (200–400 CE), Kamilamba in Congo/Kinshasa (800–1000 CE; Fig. 5), and Great Zimbabwe (1300–1400 CE) as noteworthy places where extensive archaeological research has been undertaken in recent years. Great Zimbabwe, in particular, offers a dramatic case study of early urban organization in sub-Saharan Africa, and a substantial cache of iron hoe blades unearthed there suggests how locally forged tools enabled agriculture on the vast scale needed to feed many thousands. These circumstances are informed by the research of co-curator William J. Dewey and "Striking Iron" project consultant Shadreck Chirikure.

In order to bring African voices and systems of thought to bear upon African ironworking, stories of its origins are introduced via two Spotlights on iron and cosmology. The first features works forged by Dogon blacksmiths of central Mali. Dogon understand the perils and purposes of life through complex narratives describing the beginning of time, when the Supreme Being Amma lived in the "Above" with proto-human beings called Nommo. According to a well-known account, one Nommo had the audacity to steal a piece of the sun from Amma in order to bring fire to Earth, a feat necessary to the inauguration of human culture.[2] Infuriated by such hubris, Amma hurled lightning bolts after the fleeing Nommo, causing its ark to crash and leading to the dispersal of plants, animals, and humans across Dogon

8, 8a Artist unknown (Yorùbá peoples, Meko/Ketu region, Republic of Bénin[?])
Gelede headdress
Wood, bluing agent, pigment; H: 59.7 cm
Fowler Museum at UCLA, X70.990; Gift of Mr. and Mrs. Harry Hughes
Photo: Don Cole, 2017, © Fowler Museum at UCLA

9 Kabré blacksmiths Kao Kossi and Ide Essozimna forging an *ekpande*, Tchare, Togo. *Photo: courtesy of Tom Joyce Archive, 2010*

10 Artist unknown (Ndengese peoples, DRC) Throwing knife currency (*oshele*), 19th century (for detail, see Cover) Iron; H: 80.65 cm Private collection

lands. This same Nommo became the first blacksmith of Dogon, mastering practical and arcane knowledge necessary for human survival. Dogon arts reflect such life-sustaining associations, as in one remarkable iron figure with arms raised in poignant prayer, perhaps to bring adequate rain (Fig. 6).

The second Spotlight focuses on prominent social and historical roles of Bamana blacksmiths of southern Mali, whose importance is explained in cosmology and related oral traditions long studied by project consultant Patrick McNaughton. A blacksmith's expertise in ironworking extends to his knowledge of herbal medicines and relevant performance arts in combination with his management of relations with the supernatural. In particular, Bamana smiths oversee esoteric associations called Kòmò, which marshal exceptional energies to address the social and spiritual concerns confronted in life. One of two Focus objects is a zoomorphic *boli* altar, built up over a wooden armature with layer upon layer of potent sacrificial materials. Embedded within or added to these materials is iron, often invisible to the naked eye yet present to activate these objects in enhancing community well-being and in countering the malevolent acts of both people and spirits.

The third section of the exhibition is "Iron's Material Transformation," where the work of smelting is presented, beginning with historical photographs of precolonial smelting furnaces. (With a few interesting exceptions, African iron smelting ceased around the turn of the twentieth century for practical reasons such as importation of industrially manufactured European bar stock and vast amounts of scrap iron from elsewhere in the world, brought on by political pressure to eliminate self-sufficiency and enmesh Africans in colonial political economies.) African furnaces were often shaped like women's torsos (Fig. 7); as project consultant Candice Goucher has argued, with a master smelter the "husband" of the female furnace, glowing red iron was "conceived" as the "blood" and "flesh" of life itself. The "delivery" of an iron bloom was an expression of technology's potential for material and spiritual transformation, and complex performance arts often accompanied the process. The gendered aspects of smelting

have informed the work of African blacksmiths, who continue today to forge objects that, like birth, facilitate life and embody poetic potential.

To encapsulate the work and workers of the forge, the exhibition features a remarkable Gelede mask produced by a Yorùbá artist of southeastern Republic of Bénin. Its superstructure depicts a "taskscape" of men toiling in a blacksmith's forge, with the bellows worker facing front and the smiths seated on either side of him wearing identical caps (Figs. 8–8a). Tom Joyce's video tour starts here, and explains the interactions among the men portrayed on the mask. In his presentation, Joyce draws upon the research of project co-curator Henry J. Drewal and consultant Rowland Abíódún to explain how iron is forged under the aegis of Ògún, as well as how this particular headpiece figured into

(counterclockwise from top left)
11 Attributed to Myeel (Kuba/Bushoong peoples, DRC)
Standing figure, 17th to 18th century(?)
Wrought-iron, traces of red pigment; H: 19.5 cm
Collection of MAS, Antwerp, Belgium (AE. 0773), Purchased from Henri Pareyn, Antwerp, 1920
Photo: Michel Wuyts, 2016, © MAS | Museum aan de Stroom, Antwerp

12 Two priestesses of Òrìsà Òkó stand beside the deity's primary symbol: a large iron staff (*ofa* Òrìsà Òkó) clothed in its beaded garment (*lèwu ilèkè*). Yorùbá peoples, Ilaro, Ègbádo, Nigeria. The worship of Òrìsà Òkó was introduced into Ègbádo with the expansion of the Oyo Empire.
Henry John Drewal and Margaret Thompson Drewal Collection, EEPA 1992-028-6606, Eliot Elisofon Photographic Archives, National Museum of African Art, Smithsonian Institution
Photo: Henry J. Drewal, 1977

13 Artist unknown (Ga'anda peoples, Nigeria)
Ritual adze (*wanshipta*), mid-20th century
Iron; H: 54.5 cm
Fowler Museum at UCLA, X2008.16.1; Museum Purchase
Photo: Don Cole, 2017, © Fowler Museum at UCLA

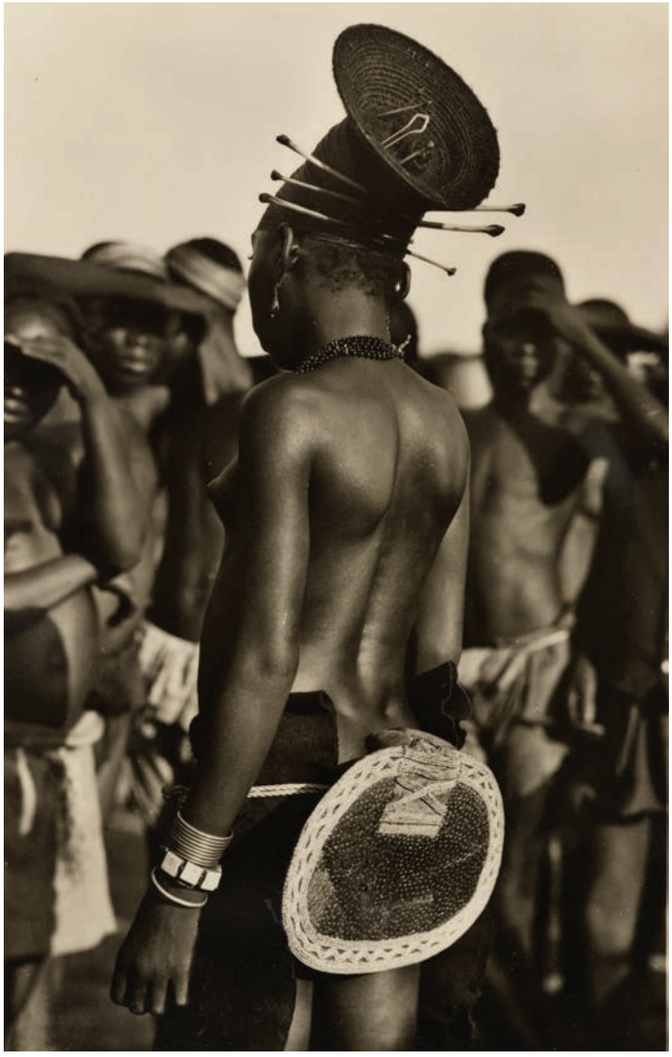
complex Gelede performances celebrating innovation, transformation, and the arcane powers of women.

The next stop on the curatorial tour is just adjacent, where, on a large-format split-screen, clips of contemporary forging at various locations provide another immersive experience. Some of this compelling footage is from Joyce and ethnomusicologist Steven Feld's collaborative research among Kabré peoples in north-central Togo. Tools and techniques come to the fore as Joyce communicates that particular tools can be as cherished by blacksmiths as the forged objects they produce. For example, he explains that a hammer made from a hard cobble-rock permits a blacksmith to achieve certain sorts of work not possible with the forged iron hammers he uses for other tasks (Fig. 9). Joyce's video tour next elucidates the virtuosic achievements of renowned African smiths, including an astonishingly large and dramatic blade by a Ndengese smith of the DRC, which functioned as display currency (Fig. 10). Joyce directs attention to the remarkably precise and controlled hammer blows that were required to forge the token's elegant tapering points (Cover). The stunning artistry of a Ndengese blade like this one is informed by the blacksmith's knowledge of the value of iron as a material, and wisdom concerning the utility of the forged iron throwing knife from which its shape derives. A second example of a blacksmith's consummate skill is a rare, small standing figure attributed to Myeel, a Kuba blacksmith of the Bushoong ruling dynasty who worked at the court in the seventeenth century (Fig. 11). As described by project consultant Colleen Kriger, Kuba's Bushoong elite considered the art of smithing to be their forte, and oral traditions recount that in the past all men of royal lineage were trained in it to some degree; Myeel, undoubtedly, was a master of the forge.

Revealing how ironworking can cleverly and harmoniously fulfill everyday needs, the next section of the exhibition, "Sustenance from the Anvil," addresses blacksmiths' careful considerations in designing seemingly mundane tools such as gardening hoes. The

14 Mangbetu woman's attire, DRC
Casimir Zagourski Photographs
EEPA 1987-024-4053, Eliot Elisofon Photographic Archives, National Museum of African Art, Smithsonian Institution
Photo: Casimir d'Ostoja Zagourski, ca. 1925–1937

15 Artist unknown (Dan peoples, Liberia or Ivory Coast)
Mask, Gaa Wree Wre, late 19th to early 20th century
Wood, copper, iron, fiber, pigment; H: 28.6 cm
Yale University Art Gallery, 1954.28.7; Gift of Mr. and Mrs. James M. Osborn for the Linton Collection of African Art
Photo: Don Whaples, 2004, © courtesy Yale University Art Gallery



results can be ingeniously ergonomic, directing the strong muscles of backs, shoulders, and arms to the rigors of farming and helping direct blade-strokes efficiently for conscientious gardening. Indeed, blades extend the hands of those deploying them. An elegant iron staff created by a Yorùbá master blacksmith by reforging hoe blades worn out from many years of farming brings this point home. In his tour, Joyce narrates how this Focus object honors and instigates Òrìsà Òkó, the Yorùbá deity who assures wealth and prosperity through the fertility of the land (Fig. 12). In detailing

(counterclockwise from top left)
16 Artist unknown (Mumuye peoples[?], Nigeria)
Rainmaking vessel, mid-20th century
Ceramic, iron; H: 44.4 cm
Fowler Museum at UCLA, X2008.32.3; Museum Purchase, 2008
Photo: Don Cole, 2017, © Fowler Museum at UCLA

17 Artist unknown (Fon peoples, Republic of Bénin)
Gu, late 19th century
Iron; H: 47 cm
The Collection of Amy and Elliot Lawrence
Photo: Steven Tucker, 2016, © courtesy Amy and Elliot Lawrence

18 Artist unknown (Yorùbá peoples, Nigeria)
Ritual axe, late 19th to early 20th century
Wood, iron, pigment; H: 50.8 cm
Harn Museum; Gift of Rodney D. McGalliard in honor of Dr. Robin Poynor
Photo: Randi Batista, 2009, courtesy Harn Museum

the considerable skill required to reforge hoe blades and thereby produce a magnificent staff, Joyce again draws attention to an iron object's exceptional features that might well be indiscernible without his very particular expertise.

Spotlights on ironworking in northeastern Nigeria and northern Cameroon are informed by the research of co-curator Marla C. Berns and project consultant Scott MacEachern. Berns's research on Ga'anda and Dadiya peoples shows how elaborations of tool shapes into performance staffs remove them from

(clockwise from top right)
19 Artist unknown (Yorùbá peoples, Nigeria)
Edan Ògbóni, 19th century
Copper alloy, iron; H: 42 cm
Charles and Kent Davis
Photo: Charles Davis, 2010, courtesy of Davis Gallery

20 Artist unknown (Yorùbá peoples, Nigeria)
Opa Osanyín, 19th century
Iron; H: 61.5 cm
Collection Mina and Samir Borro
Photo: © courtesy Mina and Samir Borro

21 Artist unknown (Fon peoples, Republic of Bénin)
Altar (*asen*), early 20th century
Iron; H: 145 cm
Charles and Kent Davis
Photo: Charles Davis, 2010, courtesy of Davis Gallery

22 Artist unknown (Vili, Woyo, or Yombe peoples, DRC)
Janus power figure of dog (*nkisi nkondi mbwa*), 19th century
Wood, iron blades, iron nails, cloth, string, straw, chain, resin; L: 72.4 cm
The Menil Collection, Houston, 1977-03 DJ
Photo: Paul Hester

23 Artist unknown (Songye peoples, DRC)
Standing figure (*nkishi*), mid to late 19th century
Wood, iron, copper, cowrie shells, horn, medicinal substances; H: 28.5 cm
Collection of MAS, Antwerp, Belgium (AE.0720), Gift of Louis Franck, Antwerp, 1920
Photo: Michel Wuyts, 2016, © MAS | Museum aan de Stroom, Antwerp

practical purposes, instead giving them symbolic weight in culturally significant circumstances such as initiations, funeral rituals, and rainmaking (Fig. 13). Among the many kinds of objects area blacksmiths have forged are modesty aprons of various styles, worn by women in the Mandara Mountains in northern Cameroon to distinguish the social stages of their lives.

Equally important to marking social transitions, status, and identities are forged iron adornments worn as hair ornaments, necklaces, bracelets, and elaborate headdresses and girdles. Among the wide array on view (documented among peoples living in locales as disparate as Namibia, Botswana, the DRC, Nigeria, Burkina Faso, and Mali) is a lavish ensemble incorporating hundreds of tiny, patiently forged iron beads into a complex headdress once worn by nineteenth-century Herero women of Namibia and Botswana to mark their marital status. Other, more modestly scaled examples of iron jewelry are the delicately forged iron hairpins worn by early twentieth-century Congolese women to adorn their stunning hairdos while signifying social status (Fig. 14).

24 Artist unknown (Luba peoples, DRC)
Ceremonial adze, 19th century
Wood, iron; L: 40.6 cm
Collection Neuberger Museum of Art, Purchase College, State University of New York, 1999.06.112; Gift of Lawrence Gussman in memory of Dr. Albert Schweitzer
Photo: courtesy The Metropolitan Museum of Art, New York

In the large fifth section, "Iron's Empowering Roles," the exhibition conveys a central message: iron has served, as it still often does, to activate spiritual power. In the words of co-curator Henry J. Drewal, it is a "cosmic connector," stimulating and ensuring the efficacies of sacred acts and arts. A blacksmith masters the processes of transforming raw iron into a culture's tools, weapons, and poetic accoutrements, and as such, he creates objects that mediate between humanity and divine agency. A Dan mask from Liberia, another Focus object, has embedded in its crest miniature forged tools and weapons that amplify the mystical capacities of the object and its performance by an able dancer leading men into battle (Fig. 15). The courage and power that a blacksmith commands as he works with fire and iron can be redirected to other fields of purpose. Miniature smithing tools grace amulets worn by Dogon and Edo ritual workers of Mali and Nigeria, bringing their energies to bear upon human needs for fertility, or for a balance between social and natural realms. Iron wands for rainmaking by Mumuye or other peoples of east-central Nigeria have a multiplicity of elements, suggesting writhing serpents and lightning flashes (Fig. 16). Their efficacy is enhanced by how difficult it is for a blacksmith to realize the tiny, interlaced details of such works.

Three regional spotlights follow, the first focusing on Yorùbá and Edo peoples of Nigeria and Fon peoples of the Republic of Bénin. It elaborates on the concept of *àṣẹ* (life force and potential) and the "performative power" to get things done under Ògún, the deity of iron, or Gu, as he is known among Fon. The Spotlight begins with an iron figure of Gu brought back to France in 1900, after the defeat and exile of the Dahomean King Béhanzin: The god wields an iron sword of authority and a long-barreled gun, representing iron's perilous potencies (Fig. 17). Gu's iron can be both creative and destructive, securing order while fostering chaos; the deity himself is a "double-edged sword," or as Yorùbá say, "a needle sharp at both ends." Drawing on the extensive knowledge of project consultant Rowland Abíódún and co-curator Henry J. Drewal, the Spotlight describes Yorùbá understanding of Ògún as the center of thought and action. Every contemporary Yorùbá blacksmith has an altar to Ògún in or just outside his forge that must be regularly invoked and "fed" with prayers and offerings to ensure that the deity is alert to the smith's protection, guidance, and promotion. Just as a blacksmith's tools mediate between hand and fire, Ògún is the intermediary between humans and the potencies of the iron implements they wield, for example, a forged axe with an exquisitely carved wooden handle representing the power and presence of the deity himself (Fig. 18).

Elsewhere in "Iron's Empowering Roles" are Yorùbá objects dedicated to the Ogbóni/Osugbo Society, whose elders litigate community conflicts. Conveying the no-nonsense authority of Ògún over Ogbóni proceedings are cast-bronze sculptures (*edan*)

25 Fali chief priest, Mwoniv hamlet, Vimtim, northeastern Nigeria. The chief and spiritual custodian holds a wooden staff of office and stands in front of his house, denoted by the elaborately modeled ceramic roof finial. Leaning against the left side of the house is a forged iron shield (*kermin*), which would have been carried by a young man during initiation. *Photo: Marla C. Berns, 1982*

within which iron shafts are hidden. The fine pair illustrated here (Fig. 19) shows blacksmiths' fire-tending tools (paddle-rake and poker) terminating the iron shafts, directly referencing the deity's power of mediation. Also included are staffs and related iron implements of Yorùbá divining and healing, including, as a Focus object, a magnificent embodiment of the deity of medicine Osanyín, bedecked with sixteen birds forged by a most masterful artist (Fig. 20). In a next stop on Joyce's video tour, he talks about the extraordinary skill required of Fon smiths in forging the miniature elements that set the stage for the narrative tableau represented upon *asen*, circular altars richly decorated with cast and forged human figures, animals, plants, and other cultural objects (Fig. 21). Joyce shares aspects of his research involving the Béninois blacksmith Léon Hounsounougan's commissions for *asen* to honor and celebrate ancestors and the Fon pantheon and the notebooks he keeps of prototypes his clientele may select for their designs.

Three additional Spotlights are dedicated to several central African peoples—Kongo,[2] Songye, Luba, and Karagwe—and informed by the research of co-curators William J. Dewey and Allen F. Roberts as well as project consultant Colleen Kriger. The first Focus objects include a standing *nkisi* figure and a Janus two-headed/doubly vigilant dog, both studded with iron shards, nails, and found objects (Fig. 22). Hammering these into the figures was a votive act, for the supplicant asked that the potent spirit(s) inhering in them address particular problems. An archive of intentionality resulted, the powers of which accrued with each intervention. Joyce's tour here notes the array of iron objects studding the *nkisi*, further suggesting the works' histories of fabrication and purpose. Small but compelling sculptures by Songye

26 Artist unknown (Sudan)
Scepter, 19th century
Iron, leather, wood; H: 70 cm
Fowler Museum at UCLA, X65.3646; Gift of the Wellcome Trust
Photo: Don Cole, 2017, © Fowler Museum at UCLA

27 Artist unknown (Nsapo peoples, DRC)
Axe (*kilonda*), 19th century
Iron, copper, wood; H: 47 cm
Jan Elsen Collection
Photo: Dick Beaulieu, 2009

peoples of the DRC complement the drama of iron empowering spirit-driven works (Fig. 23).

Also in this section, a Spotlight on Luba peoples of the DRC speaks to histories of leadership and metallurgy. Luba revere divine kings, who are "forged" through ritual processes, removing them from ordinary human concerns. They are understood to have descended from the great culture heroes who introduced the ironworking technologies that have so changed Luba political economies. Luba long used anvil-shaped hairpins in their own coiffures; tiny replicas thereof transform their carved-wood ancestral figures into poetic references to symbolic achievements. A figurative adze of the sort still possessed by Luba dignitaries as emblems of status also has miniature pillar-anvils to "close" spirit heads at either end of the handle, protecting secrets "hammered out" through the esoteric learning of "men of memory" who oversee royal activities among Luba (Fig. 24). Worn over a shoulder, a head looking behind the bearer possesses a long, incised iron "tongue" encouraging sharp speech as inspired by ancestors and past events, while a second head at the end of the handle looks forward to accomplishment.

The third Spotlight displays intricate objects, this time from the Karagwe kingdom of northwestern Tanzania, some said to have been forged by the early nineteenth-century King Ndagara. An exceptionally skilled blacksmith, he is reputed to have created a large treasury of iron standards, weapons, pillar anvils, and sculptures of cattle. Two bovine figures with huge curving horns are understood as divine leaders of the herds defining a king's wealth while possessing mystical efficacies to promote fertility and community welfare.

"Blades of Power and Prestige" is the next major focus of "Striking Iron," and it features some of Africa's most elaborately forged objects. Blacksmiths added conceptual purposes, beyond utility, to a wide range of forms to convey honor, prosperity,

28 Artist unknown (Nkutshu people[?], DRC)
Knife with iron pommel (*balingbwa*), early 20th century
Iron, copper, wood; H: 37 cm
Jan Elsen Collection
Photo: Dick Beaulieu, 2009

29 King Munza in full dress, Mangbetu peoples, DRC. Engraving by J. D. Cooper (reproduced in Georg Schweinfurth 1874).
Photo: Don Cole, 2017, © Fowler Museum at UCLA

prestige, and sophistication. While many different types of virtuosic iron objects are exhibited in the "Striking Iron" exhibition and discussed in the accompanying book, blades and currency tokens outnumber others because of the evident artistry of their forging and the compelling cultural complexities of their aesthetics and uses. With regard to blades, two intersecting principles present themselves. First, blades extend the hands of those holding or propelling them, and so enhance labor and symbolic work of many sorts. Second, in earlier days and often still today, forged implements have contributed to senses of virtue and valor, as tools were and are used skillfully in workaday circumstances and weapons deployed in perilous pursuits including big-game hunting, defense of community and self, and aggressive battle.

The selection of "Blades of Power and Prestige" begins with forged iron weapons of war, from upper arm daggers to large curved swords to throwing and stabbing knives and spears. These all bespeak courage and heroism in battle, and they bear histories of conflict. An impressive iron shield made by peoples of the Mandara Mountain region, perhaps Mafa or Fali, is covered with lavish rows of punched "bumps," attesting to the blacksmith's skill in cold-working scrap metal. Rare to find in collections, these

30 Artist unknown (Kota peoples[?], Gabon)
Throwing knife, early 20th century
Iron, brass, wood; H: 34 cm
Jan Elsen Collection
Photo: Dick Beaulieu, 2009

31 Artist unknown (Nkutshu peoples, DRC)
Axe blade currency (*lwega*)
Iron; H: 55.9 cm
Collection of Mr. and Mrs. Hansen, Belgium
Photo: Don Cole, 2017

once-functional objects were highly prized and likely expensive to make, and often kept as cultural heirlooms (Fig. 25).

The section highlights a row of six tour-de-force Focus objects, previously deployed not for practical use but in performances of political aesthetics and/or to commune with revered gods and ancestors through rituals and shrines. One, an Asante sword, has a grip covered in glowing gold leaf that leads to an iron loop grasped in the mouth of a serpent sinuously descending to three blades perforated with symbolically potent shapes. This magnificent creation would have stood next to the king's throne, attesting to his grandeur as well as to the triumphant accomplishment of the blacksmith privileged to have forged for the monarch. A very different strategy for aestheticizing power is illustrated by a scepter in the shape of a throwing knife, from the Mahdist state of the 1880s (which rose to repel British imperialism in the Sudan); another example of African ironworking ingenuity, it is graced with acid-etched Arabic and mystical inscriptions, the latter to convey the intentions if not the literal sense of the Word of God (Fig. 26).

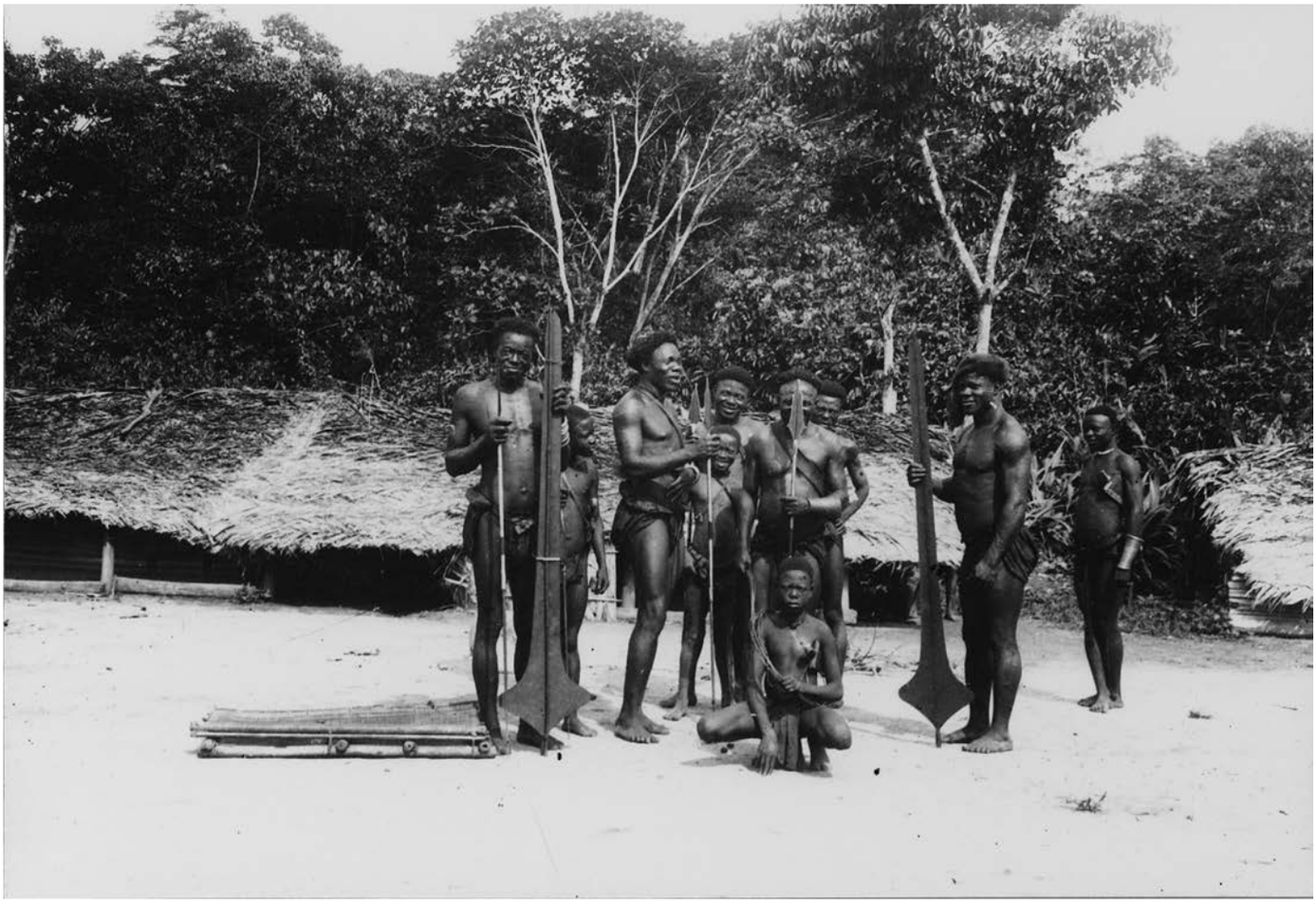
Groupings of prestige blades of a remarkable diversity of shape, size, material, and ornamentation show variations on themes; their elaborate incising, wire-wrapping, and other decorative strategies are further emphasized through clusters of related objects (Figs. 27–28). Enlargements of historical photographs and engravings contextualize some of these distinctive blade forms. Two scimitar blades forged by Mangbetu smiths of northeastern DRC are accompanied by a now-famous 1870s engraving of King Munza seated in full regalia and brandishing such a scepter (Fig. 29). Five Spotlights draw attention to particularly distinctive genres, including one, buttressed by the research of project consultant Colleen Kriger, on the breathtakingly original works of Ekonda peoples of west-central DRC (see Fig. 3). Ekonda blacksmiths of yore remain revered as founders of lineages and for producing iron tokens used in bridewealth to insure community prosperity. Ekonda masterworks were preserved in family treasuries to be danced or otherwise displayed on very special occasions by entitled men and women. Kriger's research also informs another Spotlight on the Kuba Kingdom of the DRC, where elaboration of material and performance arts has few parallels anywhere in the world. One prominent Kuba knife, an innovation known as *ikul*, was a special item of costume, designating a class of men who held high status in the kingdom; the blade's exceptional structure and elegant design offer compelling evidence of Kuba blacksmiths' singular artistry.

The throwing knife, a blade type with broad geographic distribution across Equatorial and Central Africa, was forged in an astounding array of designs and styles (Fig. 30). Following the research of project consultant Patrick McNaughton, a Spotlight details how some throwing knives were used as weapons, carefully balanced aerodynamically so as to be hurled or swung side-armed with devastating accuracy in battle, especially against cavalrymen and their horses. Others demonstrate the blacksmith's versatility and innovation in creating spectacular forms to be carried in moments of pomp and circumstance. "Blades of Speech," also found across a wide swath of sub-Saharan Africa, are among the most elegant of implements that lend themselves to metaphorical extension, as seen in figurative adzes and axes with forged iron "words" emerging from the mouths of sculpted heads of spiritual presence. Particular ethnographic data on how such items were used is scant, but one can imagine that they portrayed and facilitated the "cutting-edge" speech of ancestral agencies, informing the narrative arts of those privileged to bear them. When this sort of adze was worn over a shoulder or displayed as the extension of a performer's hand, arguments were broached, histories proposed, praises expressed, notorieties affirmed. As Herbert Cole (1989:111) suggests, "the words of leaders, like weapons and the metal of which they are made, are authoritative. Wise speech is a sharp tool" that bears the wisdom of iron and the genius of smiths (see also Thompson 1973:142).

A final Spotlight in this section shows how smiths produced blades within the cultures of Christianity and Islam in sub-Saharan Africa. Hand crosses have long been essential to the piety of Orthodox Christian Ethiopians, and some dating between the thirteenth and fifteenth centuries were forged of iron. Two fine examples are in the exhibition, and their history relayed according to the recent research of publication contributor Raymond Silverman with the blacksmith Luel WoldeSellassie in the ancient city of Aksum, where Christianity was introduced to northeastern Africa in the fourth century, if not earlier. Across the continent, Portuguese adventurers reached the Kongo kingdom of what is now Angola and the DRC in the 1490s. Christianity soon took root, strongly advocated by Kongo kings, and iron swords with hilts resonant with Christ's Corpus were forged early on.

Like Christianity, Islam has existed in sub-Saharan Africa for a very long time—since the seventh-century days of the Prophet Himself. Two Somali daggers, once important to a man's attire, bear historical echoes of shared religious and political economies between societies of the Horn and those of southern Arabia.

32 Topoke men holding examples of life-size spear-blade currencies (*liganda dihunga*), and the spears from which they derive their shape, 19th century, DRC. E.PH. 11715, Royal Museum of Central Africa, Tervuren *Photo: Thevoz, 1901*



33 Artist unknown (Budja peoples, DRC)
Currency bundle (*adjenge*), early 20th century
Iron; H: 58 cm
Felix Collection, Brussels

34a–b Artist unknown (Sara-Madjingaye peoples, Chad)
Throwing knife currencies (*kuur*), late 19th to early 20th century
Iron; H: 43.8 cm (left), 50.8 cm (right)
Fowler Museum at UCLA, X2014.40.25, X2014.40.26; Gift of Polly and Allen Roberts
Photo: Don Cole, 2017, © Fowler Museum at UCLA

Several more acid-etched calligraphic blades from the late nineteenth-century Mahdist period of the Sudan complete a Spotlight on related objects, exemplifying how forged works can "give shape to forms of thought" (Ingold 2007:14–15), for their varied designs evince entangled cultural histories of their moment. Furthermore, their inscriptions, long understood as "pseudo-Arabic," may have been meant for other eyes than those of human protagonists in the last-gasp battles of the colonial conquest of sub-Saharan Africa: It is hypothesized that the rhythmical writings were legible to *jinn* and other beings so summoned to help resist British forces.

"Blades of Value" are the exhibition's next section, focusing on precolonial iron currencies that derive from iron tool and weapon forms, representing the significance of what one could do with such things (Fig. 31; see Fig. 28). Joyce's video tour presents a six-foot-tall spear-shaped currency forged by a masterful smith among Topoke peoples of east-central DRC—a token of great wealth and a symbol of political authority (Fig. 32). The astonishingly large throwing knife currency token made by an Ndengese artist featured early in the exhibition (see Fig. 10) was valued not just for the extravagant amount of iron it required but for the virtuosity of the forging itself. A veritable choreography of currency forms is offered in "Blades of Value," some as singular examples and others forming bundles (Figs. 33–34a, b), providing ample opportunity to reflect upon the nature of value and what, after all, is "money" anyway?

Essential to the political economies of a great many African societies, iron currencies were used for fraught exchanges such as ransom or bridewealth. The latter was and often still is the "glue" of many African societies, for bridewealth instigates solidarity among a groom's kin as it does among a bride's, even as it creates a bond between the two parties. After negotiations between families to decide the terms of bridewealth, a young man turns to his parents, who network with relatives to accumulate the necessary goods. Once gifts are amassed, presented, and festively displayed as testimony to the status of both bride and groom, they are redistributed so that young men of the woman's lineage may marry. The forms of many earlier iron currency tokens used in bridewealth bespoke such social relations and stood as "material praise," for they were derived from the forms of basic tools;

35 Artist unknown (Bacham peoples, Cameroon)
Double clapperless bell, 20th century
Iron, cloth, bamboo; H: 90.2 cm
Fowler Museum at UCLA, X86.1912; Gift of Helen and Dr. Robert Kuhn
Photo: Don Cole, 2017, © Fowler Museum at UCLA

36 Artist unknown (Chokwe peoples, Angola)
Lamellophone, or "thumb piano" (*chisanji*), ca. 1890
Wood, iron; H: 36.2 cm
Musical Instrument Museum, Phoenix, 2013.56.1
Photo: Troy Sharp, 2016, © courtesy Musical Instrument Museum

for example, hoe-shaped currencies stood for the hard work, harvests, and bounty a bride's family hoped to give and a husband hoped to receive.

Within "Blades of Value," a segment on "Euro-African Trade and 'Voyage Iron'" concerns how, as of the fifteenth century, Europeans sought trade in African-produced iron and later traded imported goods for local tools made by African smiths. Project consultant Candice Goucher has researched how African technologies were brought to the Americas through the transatlantic slave trade and more benign travel. African smiths were sometimes specifically hunted down, captured, and taken on board ships and to New World plantations for their expertise. Iron bars produced in Europe and used as ballast for sailing ships were offered as exchange tokens for persons sold into slavery in coastal West and Central Africa. Several "voyage bars" from the slave ship *Henrietta Marie*, which capsized off of Florida around 1700, are displayed in the exhibition. An influx of cheap iron scrap further undermined local smelting, and European colonial administrators sometimes prohibited local industries to thereby decrease self-sufficiency and increase participation in colonial capitalism. Replicas of African currency tokens were mass-produced in Europe to destabilize precolonial African economies; "Striking Iron" exhibits spear currencies made by Kwele peoples of Gabon and Iramba of Tanzania alongside European copies.

"Sounding Forms," the penultimate section, continues the conversation about iron in a most sonorous manner, for striking metal produces rhythmic sounds in a forge, as red-hot iron is hammered and bellows pump air to elevate the temperature of the fire. Forging also produces music from instruments made completely or partially of iron. Two blades shaped like hoes can be welded together to make a double clapperless bell, sometimes of enormous scale (Fig. 35). A Focus object from Bacham peoples of Cameroon provides a notable example; a field photograph, circa 1950, shows a musician playing a set of such double bells for Sultan Seidou Njimoluh Njoya, son of the famed King Njoya,

37 Smith at work in the central marketplace, Bamako, Mali.
Photo: courtesy of Tom Joyce Archive, 2012

who ruled the Kingdom of Bamum in Cameroon from 1886 to 1933. Iron rattles can set the steps of dance, and "thumb pianos," often called *mbiras* after their Zimbabwean name, have iron keys of different sizes, producing notes sometimes played as tone poems (Fig. 36). Given the host of associations presented in earlier sections of the exhibition, it will come as no surprise that iron instruments are often sounded to call forth ancestors and other spirits, as indicated by the research of project consultant Manuel Jordán. A Spotlight on clapperless bells produced by Kabré smiths of north-central Togo permits Tom Joyce to speak, in his final video stop, of his research with ethnomusicologist Steven Feld on Kabré blacksmith Kao Kossi. Joyce and Feld also undertook a study in southern Togo with an Ewe blacksmith named Galbert Atakpa and his bellows-man Hodenou Noglo, who create an "acoustemology," as Feld puts it, of captivating rhythms and harmonies of the kind exercised in key moments of social transition and transformation.

As a grand finale, a large-scale monitor will invite viewers to take in the sights and sounds, filmed and recorded by Tom Joyce and Henry J. Drewal, of a phalanx of blacksmiths working in a vast downtown marketplace in Bamako, Mali (Fig. 37). Hundreds of hammers strike iron, hundreds of rhythms of different body-minds pound out their metallic songs in different pitches, timbres, and tones, at different paces, their fugue reflecting the beating hearts, pulsing lungs, and straining muscles of musician-blacksmiths.[4] Sounds resonate in skin, eyes, and ears with vibrant force. Sights join sounds, vision joins touch, and the iron market makes real the multisensorial worlds in which Africans live every day, as Drewal observes.

This vibrant ending brings visitors full circle from the first moments of "Striking Iron," when the universal significance of iron as an element of the cosmos made vivid the deep connections of African smelting and smithing to life forces. The Bamako iron market reminds visitors to "strike while the iron is hot," for life is brief and transitory and the journey home eternal. May we all travel well and leave indelible marks behind, like those of master blacksmiths who have toiled to create enduring works of beauty to sustain the promise of their communities.

Notes

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1 Ulli Beier (1970:34), as paraphrased by Rowland Abíódún in his preface to the forthcoming book *Striking Iron: The Art of African Blacksmiths.*

2 Well-known scholarly controversies about the nature of Dogon knowledge as interpreted by non-Dogon observers are reviewed by co-curator Allen F. Roberts in the *Striking Iron* book, as are debates about iconography regarding the sculptural motif of upraised arms.

3 "Kongo" is an umbrella term for a congeries of peoples living in northern Angola, west-central DRC, and Southwestern Congo-Brazzaville.

4 Isaie Dougnon, a scholar of Dogon culture who is himself of Dogon heritage, provides a compelling chapter to the *Striking Iron* book based upon his research with ironworkers of Bamako markets.

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